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# Programming

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## INTRODUCTION

This chapter examines ways to utilize the opportunities currently available in your present curriculum, expand to new areas, and develop a comprehensive program.

## COMPREHENSIVE PROGRAMMING FRAMEWORK

This term is used to suggest a collection of programming options designed to match services to the needs of high-ability students. This framework is comprehensive in that it includes the programming options already in place, validates them, and expands to include other options to meet the local needs. It recognizes the strength of the regular classroom as the base of services and the opportunities and enrichment that the “essential” classroom teacher brings to that base. It builds on the base to include options outside of the regular classroom to serve the special needs of some students, yet recognizes the needs of those few students who require even more individualized programming. It emphasizes the importance of support services throughout a well-designed program.

Although this framework allows flexibility and provides a perspective of the “whole program,” it is essential that each piece be a part of the integrated whole. The support functions should be integrated throughout the program and are essential pieces to program development and implementation. This framework is not tied to a particular philosophical or theoretical base and may be used with all identification processes.

The key concept in providing appropriate services to high-ability students is to offer options that place... “students at an appropriate instructional level, creating the best possible match between students’ achievement and instruction, and allows them to move forward in the curriculum as they achieve mastery of content and skills” (Daniel, R. and Cox, J., Flexible Pacing for Able Learners, 1988).

This concept may be the *single most important concept* for designing programs for high-ability students. Students *must* be able to move ahead on the basis of mastery.

*As a mosaic is built piece by piece, the project (designing a program) builds upon current exemplary elements and adds new programs and new ideas.*

—Gifted Students Institute

## **Comprehensive Integrated Gifted Education Programming Framework for Identified Gifted and Talented Students**

*The key concept in providing appropriate services to highability students is to offer options that place... “students at an appropriate instructional level, creating the best possible match between students’ achievement and instruction, and allows them to move forward in the curriculum as they achieve mastery of content and skills” (Daniel, R. and Cox, J., Flexible Pacing for Able Learners, 1988).*

## OPTIONS WITHIN THE REGULAR CLASSROOM

### CURRICULUM MODIFICATION

By using the curriculum “compacting” modification, the instructor can match the curriculum to the learner needs. This approach is particularly successful in skill-based instructional areas, such as math, reading skills, spelling and language arts. Three steps are integral to this process.

1. Preassessment. Before teaching a content/skill area, the instructor determines what parts of it the students already know. Chapter tests, mastery tests and skills “spot” tests administered at the start of a new unit or chapter have all proved to be practical ways to preassess.
2. Modification. Once the teacher knows the match between what students know and what they need to know in the curriculum, the teacher can modify for instruction. Flexible grouping based on skills mastery is one effective, teacher-friendly way to accomplish this. Students flow in and out of the instructional group based on the gaps in their skills knowledge.
3. Learning activities. Students who have proven mastery of a particular set of skills or an entire chapter “buy” that instructional time to work on more appropriate curriculum. To be successful for both students and teachers, learning opportunities need to be based on the student’s individual interests, to focus on a student’s strengths—not to shore up areas of weakness; to incorporate some degree of student choice, and to include a plan for structuring the student’s use of time, as well as a standard of measurement for completed work. These learning opportunities should provide an intellectual challenge for the student, not be “more of the same” activities.

In remedial education, diagnosis and prescription point out learning objectives students have not yet mastered, and instruction is intended to help students “catch up” with the rest of the class. With compacting, pretesting identifies learning objectives already mastered. Students are allowed to “test out” of certain academic exercises and move on to new material.

Reis, Sally M., Deborah E. Burns, Joseph S. Renzulli, Curriculum Compacting: A Guide for Teachers, The National Research Center on the Gifted and Talented, 1992.

### ENRICHMENT vs ACCELERATION

All students should have enriching experiences as a regular part of their academic life. Enrichment and acceleration are complimentary parts of a curriculum for highability students. The critical point is that all three factors—content, process, and product—

*Although enrichment and acceleration may be a part of the process, compacting encompasses much more. It is, in fact, more closely associated with diagnosis and prescription, methods used in remedial education.*

*In a comprehensive program for high-ability learners the core curriculum in the fundamental learning areas must be differentiated or modified. These modifications may occur in the content, process, product and/or learning environment.*

must be both enriched and accelerated. Without both acceleration and enrichment, more is simply more; the qualitative difference is not reached.

Other appropriate options for flexible pacing based on the students needs might be:

- ✓ early entrance into school or grade skipping
- ✓ cluster or ability grouping may be used particularly for skill work
- ✓ interest groups
- ✓ within and cross-grade level grouping
- ✓ compacted course work
- ✓ testing out of course work
- ✓ learning centers
- ✓ concurrent enrollment (dual enrollment in college and high school)
- ✓ early graduation

#### **DIFFERENTIATED CURRICULUM with flexible pacing...**

In a comprehensive program for high-ability learners the core curriculum in the fundamental learning areas must be differentiated or modified. These modifications may occur in the *content, process, product and/or learning environment*. Since this learning usually takes place in the regular classroom, the classroom teacher is the “essential” teacher in the delivery of the curriculum based on the needs of the student.

#### **Principles of a Differentiated Curriculum for the Gifted/Talented**

- Present content that is related to broad-based issues, themes, or problems.
- Integrate multiple disciplines into the area of study.
- Present comprehensive, related, and mutually reinforcing experiences within an area of study.
- Allow for the in-depth learning of a self-selected topic within the area of study.
- Develop independent or self-directed study skills.
- Develop productive, complex, abstract, and/or higher-level thinking skills.
- Focus on open-ended tasks.
- Develop research skills and methods.

- Integrate basic skills and higher-level thinking skills into the curriculum.
- Encourage the development of products that challenge existing ideas and produce “new” ideas.
- Encourage the development of products that use new techniques, materials and forms.
- Encourage the development of self-understanding, i.e., recognizing and using one’s abilities, becoming self-directed, appreciating likenesses and differences between oneself and others.
- Evaluate student outcomes by using appropriate and specific criteria through self-appraisal, criterion-referenced and/or standardized instruments.

National/State Leadership Training Institute on the Gifted and Talented, Developed by the Curriculum Council (James J. Gallagher, Sandra N. Kaplan, A. Harry Passow, Joseph S. Renzulli, Irving S. Sato, Dorothy Sisk, Janice Wickless).

## Curriculum Modification

Content	Process	Products	Learning Environment
•Abstraction	•Higher Levels	•Real Problems of Thinking	•Open, Accepting, and Non-threatening
•Complexity	•Open-Endedness	•Real Audiences	
•Organization	•Inquiry/Discovery •Inductive/Deductive Reasoning •Freedom of Choice •Group Interactions/ Simulations •Variety •Pacing	•Product Evaluations •Transformation	

## Content Modification

CONTENT consists of facts, descriptive information, concepts, ideas, generalizations, principles, and rules that are presented to learners. Content modifications include the use of:

*PROCESS is the presentation of content, including the learning activities for students, the questions which are asked, as well as the teaching methods and thinking skills used.*

- ABSTRACTION—going beyond the facts and the obvious to the conceptual framework, underlying ideas, symbolism, and hidden meanings of the content.
- COMPLEXITY—posing more challenging questions or situations that force the learner to deal with the intricacies of the content.
- ORGANIZATION—selecting new arrangements of content, e.g., functional similarities, categorical groups, descriptive similarities, in place of the typical chronological organization.

## Process Modification

PROCESS is the presentation of content, including the learning activities for students, the questions which are asked, as well as the teaching methods and thinking skills used. Process modifications include the use of:

- HIGHER LEVELS OF THINKING—emphasizing questions that enable the learner to analyze, synthesize or evaluate.
- OPEN ENDEDNESS—asking questions that promote critical and creative thinking.
- INQUIRY—providing opportunities for the learner to arrive at self-drawn conclusions or generalizations.
- INDUCTIVE AND DEDUCTIVE REASONING—asking the learner to cite the sources, clues given, and logic used in drawing conclusions.
- FREEDOM OF CHOICE—providing opportunities for self-directed activities such as independent study.
- GROUP INTERACTIONS/SIMULATIONS—using structured simulations for group problem-solving.
- VARIETY—encouraging a variety of teaching strategies.
- PACING
  - the *rapidity* with which content is presented.
  - the *extension* of time and deadlines so that further integration of ideas may take place.
  - *flexibility* in time allowance.

## Product Modifications

PRODUCTS are the outcomes of instruction, whether tangible or intangible, complex or unsophisticated. Products will have characteristics that are professional in nature. Appropriate modifications include:

- REAL PROBLEMS—exposure to questions or problems investigated by professionals appropriate to the discipline.
- REAL AUDIENCES—encouragement to develop products directed toward an audience of “professionals” or “experts” in that discipline.
- PRODUCT EVALUATION—combination of teacher assessment using preestablished criteria with pupil self-evaluation and evaluation by a “real audience.”
- TRANSFORMATIONS—development of student products which are beyond more summarization of the concepts presented, i.e., reinterpretation, elaboration, extension, and synthesis.

*PRODUCTS are the outcomes of instruction, whether tangible or intangible, complex or unsophisticated.*

## Learning Environment Modification

LEARNING ENVIRONMENT is the setting in which learning occurs, and it may be both physical and psychological. In modifying the setting, the characteristics, strengths and preferences of the learner must be considered.

The teacher must develop an atmosphere which will allow for OPENNESS AND ACCEPTANCE to encourage the student behaviors of:

- FLEXIBILITY—ability to shift perspectives or directions of thought and ideas easily.
- FLUENCY—ability to rapidly generate a large number of answers to an openended question.
- ELABORATION—ability to “improve” upon a simple idea through embellishment or detail.
- ORIGINALITY—ability to generate a unique thought or product.
- RISK-TAKING—courage to take a guess in a safe environment to develop tolerance for risking failure in an ambiguous setting.
- COMPLEXITY—presenting progressively more difficult challenges through ideas, problems, and solutions.
- CURIOSITY—willingness to pursue an idea beyond an introductory stage.

*LEARNING ENVIRONMENT is the setting in which learning occurs, and it may be both physical and psychological.*

Source: Gifted Education Resource Guide, Illinois State Board of Education

*Minds, like the muscles  
of the body, should be  
worked and exercised  
and not allowed to  
stagnate.  
—Deborah P.,  
Jan. 29, 1992,  
Yellowstone County  
Detention Student*

## **OPTIONS BEYOND THE REGULAR CLASSROOM**

- ✓ pull-out options which
  - relate to talents and abilities
  - relate to curriculum
  - use compacting and contracting
  - use flexible grouping
  - use resource teachers and materials
- ✓ mini courses
- ✓ honors classes
- ✓ cluster or interest area groups
- ✓ seminars
- ✓ co-curricular/extracurricular activities
- ✓ Talent Pool activities
- ✓ Odyssey of the Mind, Future Problem Solving, Scholar's Bowl, Academic Decathlon and other academic competitions

## **INDIVIDUALIZED PROGRAMMING**

- ✓ Individualized Learning Plans
- ✓ Independent Research
- ✓ Internships
- ✓ Mentorships
- ✓ Radical Acceleration
- ✓ Early entrance at any level

## **IN SUMMARY, QUALITY PROGRAMS MUST MEET STUDENT NEEDS IN THE FOLLOWING AREAS:**

- ✓ facilitate a high level of mastery of the content and skills of the core curriculum
- ✓ facilitate a mastery of content skills tailored to the learner's needs
- ✓ develop and challenge abilities to utilize higher levels of thinking
- ✓ cultivate self-directed learning and self-evaluation skills
- ✓ facilitate production of original knowledge and products
- ✓ nurture personal growth toward self-understanding and self-expression
- ✓ promote a highly developed love of learning and doing



## PROGRAM IMPLEMENTATION

After the planning committee develops the proposal for the 3-5 year plan for implementation of the program, it is presented to the steering committee along with the proposal for student identification. These proposals must then be revised, if necessary, and adopted by the steering committee. At this time it is important that the local school board accept the proposals and adopt the necessary policy statements so that options such as early entrance, grade skipping, acceleration and test out, concurrent enrollment, and early graduation are supported by board policy.

## Program Design Standards of the Council for Exceptional Children

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Program design is the plan for the administrative configuration through which instruction is delivered to gifted and talented students. Since these students are receiving service throughout the educational system, programs that fall into this category go beyond those designated as “G/T” and include *all* programs in which gifted and talented students are involved. The intent is to build a flexible system of viable program options throughout the general and special education structures that are compatible with and can be matched to the strengths, needs, and interests of gifted and talented students.

### 1. Programs for the Gifted and Talented Are Articulated With General Education Programs

Programs for the gifted and talented are part of the general program offerings of the school district, as these students are typically involved in programs that are considered general education.

Articulation involves planning the extension of general education programs in order to address the needs of these students; policy review to assure that policies encourage involvement in rigorous programs; and communication between parties to keep all participants informed and the program developing.

### 2. Programs Are Comprehensive, Structured, and Sequenced Across Grade Levels

Comprehensive programs for the gifted and talented go beyond academics and include options in areas such as the arts, leadership, and creativity. These programs are planned and ordered so that students can continue to develop their skills.

*You have to make friends long before you need them.*

—Lyndon B. Johnson

*The intent is to build a flexible system of viable program options throughout the general and special education structures that are compatible with and can be matched to the strengths, needs, and interests of gifted and talented students.*

*The program options offered are determined by the needs of the students being served.*

**3. Programs Are an Integral Part of the School Day and May be Extended to Other School and Community-Related Settings**

Programs for the gifted and talented are central to the students' educational program and meet during the school day. In some instances, programs may be held before or after school or in settings other than school when the nature of the experience (not the convenience of the schedule) requires this timing.

**4. Administrative Structures and Program Options Are Based on Student Needs**

The program options offered are determined by the needs of the students being served. These options may vary based on the needs and resources of the community. Ongoing needs assessments are necessary in order to assure that current needs and options are compatible.

**5. All Gifted and Talented Students Are Assured Programs Commensurate With Their Abilities**

Programs are available that represent the varying ranges of ability and needs displayed by gifted and talented students. Access to the programs is guaranteed to these students.

**6. Resources for Program Development and Implementation Are Distributed Equitably Throughout the School District**

Gifted and talented students throughout a school district are given appropriate educational programs regardless of the school they attend. Resources are distributed based on student needs.

**7. Programs Incorporate a Blend of Community Resources and School-Based Support Services in Program Development and Delivery**

School psychologists, social workers, content area specialists, counselors, and community members add expertise to the planning and implementation of program options. They expand the range of support for the programs and open doors to opportunities for students beyond those available through the district or individual program personnel.

**8. Specialists in Gifted Child Education Are Consulted in Program Policy Development**

Informed advocates for these students give district personnel guidance in program planning so that the procedures and policies are consistent with the needs of gifted and talented students.

9. Ongoing Program Evaluation Activities Are Conducted for the Purpose of Continued Program Development

A plan for evaluation is in place and implemented so that program decisions are based on data generated from program students and personnel.

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Reprinted from Council for Exceptional Children, The Association for the Gifted (1990), *Standards for Program Involving the Gifted and Talented*. Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children.

## STAFF DEVELOPMENT

Without the understanding of the staff and the administration, even the best program will be short lived. It is, therefore, essential that these people be aware of the needs of high-ability students and be a part of the development of the plan to serve these needs.

### For more information on program development:

Clasen, Robert E., Educating Able Learners, Agency for Instructional Technology, 1991 (12-part video series)

Colangelo, Nicholas and Gary Davis, Handbook of Gifted Education; Allyn and Bacon, 1991

Cox, June, Neil Daniel, and Bruce O. Boston; Educating Able Learners; University of Texas Press, Austin, Texas, 1985

Dettmer, Peggy, Linda P. Thurston, and Norma Dyck; Consultation, Collaboration, and Teamwork for Students with Special Needs, Allyn and Bacon, 1993

Davis, Gary A. and Sylvia B. Rimm; Education of the Gifted and Talented. Second Edition; Prentice Hall, New Jersey, 1989

Parke, Beverly N.; Gifted Students in Regular Classrooms; Allyn and Bacon, 1989

Renzulli, Joseph S., Editor; Systems and Models for Developing Programs for The Gifted and Talented; Creative Learning Press, Inc., 1986

VanTassel-Baska, Joyce, John Feldhusen, Ken Seeley, Grayson Wheatley, Linda Silverman, William Foster; Comprehensive Curriculum for Gifted Learners, Allyn and Bacon, 1988

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